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Spectroscopic Results for the Motions of Stars in the Line of Sight, obtained at the Royal Observatory, Greenwich, in the year 1881. No. V.

(*Communicated by the Astronomer Royal.*)

The results here given are in continuation of those printed in the *Monthly Notices*, vol. xxxvi. p. 318, vol. xxxvii. p. 22, vol. xxxviii. p. 493, and vol. xli. p. 109. The observations were made with the "half-prism" spectroscope, one "half-prism" with a dispersion of about 18°½ from A to H being used, except in a few cases of bright stars, mentioned in the remarks, where a train of two "half-prisms," with a dispersion of 83° from A to H, was used. An eyepiece with a magnifying power of 14 was employed throughout. Since the beginning of 1881 a convex cylindrical lens, with its axis parallel to the length of the spectrum, has been placed in the view-telescope within the focus, instead of in front of the slit as before. Thus the angle of divergence of the rays which fall on the object-glass of the collimator is not affected, as was formerly the case. A concave or Barlow lens of 2 inches focus has been placed in the collimator between the slit and the object-glass, so that the whole aperture of the object-glass and of the prisms may be used, the ratio of aperture to focal length being greater for the collimator of the spectroscope than for the refractor. In most of the observations a diaphragm coated with Balmain's luminous paint has been used in the micrometer-adapter to give a phosphorescent illumination of the field.

Up to the present time the motions of 99 stars have been spectroscopically determined, though the results in many cases are still very uncertain.

The observations of the moon and of the sky spectrum have been made as usual as a check on the general accuracy of the results.

Motions of Stars in the Line of Sight in Miles per Second, observed with the Half-prism Spectroscope.

(+ denotes Recession; − Approach.)

The initials W. C. and M. are those of Mr. Christie and Mr. Maunder respectively.

The weights are on a scale of ½ to 5 for each observation.

Stars marked with an asterisk have not been previously observed.

Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
					α Andromedæ.		
1881.							
Sept. 30	M	3	F	− 1·3	−23·0	−23·7	Star line dark, not very broad, though somewhat ill defined at the edges. Spectrum steady.
	M	3	F	− 1·3	−28·6	−32·0	
	M	3	F	− 1·3	−15·4	−15·4	

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Date.		Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star.		Remarks.
						Meas.	Estimd.	
1881.								
Dec.	3	M	2	F	+14·7	−37·5	−37·2	Star-line dark, but broad, ill defined and nebulous.
		M	2	F	+14·7	−57·2	−50·6	
		M	2	F	+14·7	−46·1	−41·7	
	7	M	3	F	+15·3	−43·7	−42·6	Definition fair. Direct comparison showed only a small displacement.
		M	3	F	+15·3	−50·4	−48·0	
						β Cassiopeiæ.		
Dec.	7	M	½	F	+ 8·1	−42·9	−35·4	Star-line not very broad; but very difficult to bisect.
		M	½	F	+ 8·1	−38·9	−35·4	
		M	½	F	+ 8·1	−25·7	−26·3	
						γ Pegasi.		
Dec.	3	M	2	F	+16·7	−23·8	−23·1	Star-line faint, broad and very diffused at the edges.
		M	2	F	+16·7	−48·1	−43·7	
		M	2	F	+16·7	−43·5	−39·2	
						*δ Andromedæ.**		
Nov.	19	M	3	b_1	+10·0	−72·0	−68·5	Spectrum faint and tremulous, but definition good at times.
		M	3	b_1	+10·0	−52·1	−49·0	
	22	M	1	b_1	+11·2	− 2·2	− 1·0	Definition variable.
		M	3	b_1	+11·2	−30·3	−31·6	
		M	2	b_1	+11·2	−46·3	−62·3	
						*β Ceti.**		
Nov.	19	M	4	b_1	+14·7	−45·5	−53·7	Spectrum tremulous, but star-lines seen well at times.
		M	4	b_1	+14·7	−47·4	−53·7	
	28	M	1	b_1	+16·1	−28·6	−28·0	Definition poor and star-lines faint.
		M	1	b_1	+16·1	−14·2	− 7·8	
		M	1	b_1	+16·1	−32·9	−32·8	
						γ Cassiopeiæ.		
Dec.	7	M	2	F	+ 6·9	−20·5	−20·5	The star-line, being bright instead of dark, was difficult to bisect.
		M	2	F	+ 6·9	−18·5	−17·8	
		M	2	F	+ 6·9	−28·2	−25·1	
						β Andromedæ.		
Oct.	18	M	3	b_1	− 0·8	+44·8	+44·9	Spectrum bright. Star-lines dark and fairly well defined.
		M	3	b_1	− 0·8	+42·9	+44·9	
Nov.	19	M	2	b_1	+ 8·2	−30·0	−32·6	Image tremulous, definition variable.
		M	2	b_1	+ 8·2	−56·1	−56·9	
	22	M	½	b_1	+ 9·0	−57·7	−60·1	Definition poor.

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
1881.							
Nov. 22	M	½	b_1	+ 9·0	− 5·5	+ 1·2	
	M	½	b_1	+ 9·0	+ 4·6	+11·4	
	M	½	b_1	+ 9·0	−56·6	−60·1	
					*δ Cassiopeiæ.**		
Dec. 7	M	2	F	+ 6·5	+16·9	+20·8	Star-line very broad. Spectrum faint.
	M	2	F	+ 6·5	+ 4·0	+ 4·4	
					*α Trianguli**.		
Nov. 19	M	3	b_1	+ 6·9	+54·7	+58·1	Spectrum faint, but steady.
	M	3	b_1	+ 6·9	+56·6	+58·1	
					α Arietis.		
Nov. 19	M	5	b_1	+ 6·9	−15·5	−16·6	Definition very good.
	M	5	b_1	+ 6·9	− 7·7	− 6·9	
	M	5	b_1	+ 6·9	− 6·5	− 6·9	
					α Ceti.		
Nov. 28	M	2	b_4	+ 7·6	−11·5	− 7·6	Definition poor.
	M	2	b_1	+ 7·6	−12·3	− 7·6	
	M	2	b_1	+ 7·6	−22·4	−24·3	
					*ρ Persei.**		
Nov. 22	M	½	b_4	+ 2·3	−37·8	−55·5	The star-line, b_4, was not distinctly isolated.
	M	½	b_4	+ 2·3	−53·8	−66·2	
	M	½	b_4	+ 2·3	−22·2	−23·6	
					ζ Persei.		
Oct. 18	M	1	b_1	−10·6	−14·3	−11·4	Star-lines faint. Definition poor.
	M	1	b_1	−10·6	−15·5	−11·4	
					*ε Tauri.**		
Nov. 22	M	2	b_1	− 1·9	+22·5	+27·5	Definition fair.
	M	2	b_1	− 1·9	+18·3	+27·5	
					Aldebaran.		
Mar. 28	M	2	b_1	+15·8	+78·6	+102·7	Star-lines dark, but difficult to isolate. Spectrum very tremulous. Definition poor.
	M	2	b_1	+15·8	+71·9	+102·7	
31	M	4	b_1	+15·3	+94·7	+ 62·3	Star-lines dark. Spectrum bright, but tremulous.
	M	4	b_1	+15·3	+78·7	+ 62·3	
	M	4	b_1	+15·3	+85·3	+ 62·3	
April 7	M	2	b_1	+13·9	+26·0	+ 24·6	Star-lines ill defined. Spectrum very faint and tremulous. Two-prism train.
	M	2	b_1	+13·9	+24·4	+ 24·0	

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
1881.							
Oct. 18	M	3	b_1	+12·4	+14·0	+12·4	Star-lines dark and distinct.
	M	3	b_1	+12·4	+27·1	+21·2	Spectrum very bright.
	M	3	b_1	+12·4	+37·7	+34·4	
Nov. 22	M	3	b_1	− 2·3	+40·5	+53·4	Definition poor.
	M	3	b_1	− 2·3	+31·5	+36·3	
	M	3	b_1	− 2·3	+ 4·6	+ 2·3	
28	M	3	b_1	− 0·4	+26·1	+21·3	Definition poor.
	M	3	b_1	− 0·4	+ 9·7	+ 8·7	

Capella.

Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
Mar. 31	M	3	b_1	+15·8	+21·2	+23·0	Spectrum tremulous, but very bright. Definition fair.
	M	3	b_1	+15·8	+16·5	+23·0	
April 6	W.C.	2	b_1	+15·0		+51·0	Definition variable.
	W.C.	2	b_1	+15·0		+58·3	
7	M	5	b_1	+14·9	+37·1	+36·4	Spectrum bright. Definition fair. Two-prism train.
	M	5	b_1	+14·9	+37·3	+36·4	
	M	5	b_1	+14·9	+27·1	+27·9	
	M	5	b_4	+14·9	+28·2	+31·7	

Rigel.

Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
Feb. 28	M	½	F	+16·0	+12·4	+19·9	Definition very bad.
	M	½	F	+16·0	+15·1	+19·9	
Mar. 14	M	2	F	+15·7	+31·5	+21·8	Spectrum tremulous. Definition poor.
	M	2	F	+15·7	+32·4	+21·8	
Dec. 7	M	5	F	+ 0·3	+15·1	+13·3	Spectrum bright, but tremulous.
	M	5	F	+ 0·3	+ 8·3	+10·6	
	M	5	F	+ 0·3	+14·2	+13·3	

γ Orionis.

Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
Dec. 3	M	1	F	− 2·2	+30·0	+24·7	Definition poor.
	M	1	F	− 2·2	− 9·2	− 6·8	
	M	1	F	− 2·2	+ 1·6	+ 2·2	

β Tauri.

Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
April 9	M	4	F	+15·9	+ 5·1	+17·4	Spectrum steady. Definition good.
	M	4	F	+15·9	+26·6	+44·0	
	M	4	F	+15·9	+13·7	+34·1	
Dec. 3	M	1	F	− 2·9	−19·9	−19·6	Star-line dark, and, though broad, fairly well defined.
	M	1	F	− 2·9	−14·7	−12·1	
	M	1	F	− 2·9	−12·2	− 8·4	

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
					α Orionis.		
1881.							
Mar. 31	M	1	b_4	+17·1	+13·3	+22·5	Spectrum tremulous, but very bright. Definition of star lines fair.
	M	1	b_4	+17·1	+23·8	+22·5	
	M	1	b_1	+17·1	− 1·9	+ 2·3	
	M	3	b_1	+17·1	+35·9	+29·5	
April 7	M	3	b_1	+16·4	− 0·4	+ 5·0	Spectrum faint, but fairly steady. Definition fair. Two-prism train.
	M	3	b_1	+16·4	+ 6·1	+ 9·3	
	M	3	b_4	+16·4	+30·1	+24·4	
	M	3	b_4	+16·4	+ 6·5	+10·8	
Nov. 28	M	2	b_1	− 6·3	+26·6	+26·9	Definition poor.
	M	2	b_1	− 6·3	+53·5	+56·3	
					β Aurigæ.		
April 9	M	3	F	+15·8	+ 2·1	+ 9·2	Definition good, but star-line not quite so well seen as in β Tauri.
	M	3	F	+15·8	−13·7	−15·8	
					γ Geminorum.		
Feb. 28	M	½	F	+16·5	+11·0	+19·4	Definition bad. Measures uncertain.
	M	½	F	+16·5	− 7·6	− 4·5	
Mar. 14	M	1	F	+18·0	+ 8·5	+14·8	
	M	½	F	+18·0	+29·8	+25·8	
					Sirius.		
Feb. 16	M	½	F	+10·4	+ 9·6	+11·8	Spectrum very tremulous, and definition very bad.
	M	½	F	+10·4	+ 3·5	+11·8	
28	M	1	F	+12·2	+ 3·5	+11·8	Definition bad.
	M	1	F	+12·2	+14·6	+23·7	
Dec. 7	M		F	− 6·4	−23·5	−20·9	Spectrum very bright. Star-lines well seen. Direct comparison distinctly confirmed these measures.
	M		F	− 6·4	−19·8	−20·9	
					Castor.		
April 16	M	½	F	+17·7	−49·1	−51·1	Star-line very broad and diffused at the edges.
	M	½	F	+17·7	+22·1	+24·1	
					Procyon.		
Feb. 16	M	1	F	+10·2	+39·5	+43·1	Star-line faint. Spectrum faint, and definition bad.
	M	1	F	+10·2	+18·8	+23·1	
28	M	3	F	+13·0	+ 3·1	+ 2·0	Definition fair.
	M	3	F	+13·0	+ 1·8	+ 2·0	

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
1881.							
Mar. 14	M	2	F	+15·6	+13·1	+17·2	
	M	1	F	+15·6	+31·0	+28·2	
April 9	M	4	F	+17·6	+45·9	+57·4	Definition good.
	M	4	F	+17·6	+29·6	+49·0	
	M	3	F	+17·6	+17·1	+ 6·8	Spectrum faint. Two-prism train.
	M	2	F	+17·6	+12·1	+ 0·7	
Pollux.							
Mar. 25	M	2	b_1	+17·5	−71·7	−82·4	Spectrum very bright and fairly steady. Star-lines faint and ill defined.
	M	2	b_1	+17·5	−17·9	−17·5	
	M	1	b_1	+17·5	−77·5	−82·4	
	M	1	b_1	+17·5	−15·9	−17·5	
28	M	3	b_1	+17·7	− 0·2	+11·9	Spectrum steady. Definition good.
	M	3	b_1	+17·7	+17·8	+21·8	
April 7	M	1	b_1	+18·1	−34·5	−39·5	Spectrum faint and tremulous. Star-lines faint. Definition poor. Two-prism train.
	M	1	b_4	+18·1	− 2·9	+ 2·3	
	M	1	b_1	+18·1	−17·7	−18·1	
	M	2	b_1	+18·1	−10·0	− 9·5	
	M	2	b_1	+18·1	−12·2	−13·8	
α Hydræ.							
Mar. 31	M	1	b_1	+12·2	− 9·1	− 4·4	Spectrum tremulous and faint. Star-lines faint.
	M	1	b_1	+12·2	−16·1	−20·0	
ε Leonis.							
Mar. 25	M	2	b_1	+13·2	+18·4	+19·3	Star-lines dark. Definition fair.
	M	2	b_1	+13·2	− 3·9	− 0·2	
Regulus.							
May 11	M	½	F	+17·9	−23·5	−22·9	Definition fair.
	M	3	F	+17·9	+ 1·8	+ 1·8	
	M	3	F	+17·9	+ 3·1	+ 6·8	
γ_1 Leonis.							
Mar. 25	M	1	b_1	+11·1	+31·4	+40·8	Star-lines exceedingly difficult to see.
	M	1	b_1	+11·1	+11·9	+14·9	
δ Leonis.							
May 6	M	½	F	+16·0	+15·4	+11·4	Star-line faint and diffused.
	M	½	F	+16·0	+ 2·5	+ 2·3	
11	M	3	F	+16·6	+20·1	+20·4	Definition fair.
	M	3	F	+16·6	+16·1	+16·3	

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
					χ Ursæ Majoris.		
1881.							
May 20	M	½	F	+13·4	+21·1	+18·8	Spectrum faint. Star-line diffused and faint.
	M	½	F	+13·4	−20·5	−19·9	
					β Leonis.		
May 4	M	2	F	+13·1	+10·9	+12·4	Star-line very diffused.
	M	2	F	+13·1	−34·4	−32·2	
	M	2	F	+13·1	− 4·5	− 5·5	
11	M	½	F	+15·5	−28·1	−27·8	Definition very poor.
	M	½	F	+15·5	−39·8	−40·2	
					*β Virginis.**		
Mar. 25	M	½	b_1	+ 3·3	−49·7	−68·2	Spectrum faint.
	M	½	b_1	+ 3·3	−35·6	−46·6	
					δ Ursæ Majoris.		
May 20	M	1	F	+11·1	−14·8	−17·6	Star-line diffused.
	M	1	F	+11·1	−20·4	−17·6	
					γ Virginis.		
May 4	M	2	F	+10·6	+23·9	+27·6	Star-line diffused.
13	M	½	F	+12·7	+23·7	+17·1	Star-line dark. Spectrum faint, and definition bad.
	M	½	F	+12·7	− 1·6	− 1·5	
					α Canum Venaticorum.		
May 11	M	2	F	+11·7	−31·1	−28·2	Definition fair.
	M	2	F	+11·7	−41·9	−41·3	
					ε Virginis.		
Mar. 31	M	½	b_1	+10·1	−17·1	−17·9	Star-lines very faint.
	M	½	b_1	+10·1	+ 3·9	+ 9·3	
					Spica.		
May 13	M	3	F	+ 9·3	−21·6	−20·5	Star-line very faint.
	M	3	F	+ 9·3	−24·4	−24·2	
	M	2	F	+ 9·3	−35·5	−31·6	
	M	2	F	+ 9·3	−13·9	−13·8	
					ζ Ursæ Majoris.		
May 20	M	1	F	+ 9·6	+24·6	+29·1	Star-line very diffused and difficult to bisect.
	M	1	F	+ 9·6	+12·9	+22·6	
					η Ursæ Majoris.		
May 20	M	1	F	+ 9·4	+15·9	+16·4	Star-line very diffused and difficult to bisect. Images steady.
	M	1	F	+ 9·4	+27·3	+29·3	

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star.		Remarks.
					Meas.	Estimd.	
					Arcturus.		
1881. June 22	M	3	b_1	+14·3	−25·3	−25·1	Definition variable, generally poor, but star-lines seen well at times. Two-prism train.
	M	3	b_1	+14·3	−38·6	−36·0	
					ϵ_2 Boötis.		
June 22	M	1	b_1	+12·2	+ 2·6	+ 0·9	Definition variable.
	M	1	b_1	+12·2	+18·6	+14·0	
					*β Boötis.**		
June 22	M	1	b_1	+ 9·7	−29·6	−35·9	Definition variable.
	M	1	b_1	+ 9·7	−54·5	−49·0	
					β Libræ.		
May 6	M	1	F	− 0·4	−32·0	−30·0	Star-line dark, but diffused, and somewhat difficult to bisect.
	M	1	F	− 0·4	−37·8	−30·0	
					α Coronæ.		
May 13	M	½	F	+ 2·8	+12·3	+12·1	Spectrum faint. Definition bad.
	M	½	F	+ 2·8	+16·9	+12·1	
					γ Herculis.		
May 6	M	½	F	− 2·6	−27·3	−24·8	Observation interrupted by cloud.
					α Herculis.		
June 22	M	½	b_4	+ 4·2	+32·0	+28·0	Definition very poor.
	M	½	b_4	+ 4·2	+ 4·8	+ 8·7	
					α Ophiuchi.		
Sept. 30	M	1	F	+14·2	−54·3	−39·2	Spectrum bright and steady. Star-line a broad faint nebulous haze.
	M	1	F	+14·2	−37·3	−30·9	
					γ Draconis.		
June 22	M	½	b_4	+ 0·4	+18·7	+21·4	Definition bad.
	M	½	b_4	+ 0·4	+ 9·3	+16·0	
					α Lyræ.		
Sept. 14	M	1	F	+ 8·0	−39·4	−31·2	Spectrum tremulous. Definition very bad.
	M	1	F	+ 8·0	−26·5	−19·6	
30	M	2	F	+ 8·6	−31·7	−31·1	Spectrum bright and fairly steady. Star-line ill defined.
	M	2	F	+ 8·6	−18·5	−21·1	
					γ Lyræ.		
Sept. 30	M	½	F	+10·3	−49·2	−47·7	Spectrum faint. Star-line very ill defined.
	M	½	F	+10·3	−38·7	−27·0	

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Concluded Motion of Star. Estimd.	Remarks.
					ζ Aquilæ.		
1881. Sept. 19	M	2	F	+13·7	−31·0	−25·9	Images steady. Star-line broad, diffused, and faint.
	M	2	F	+13·7	−30·4	−25·9	
	M	2	F	+13·7	−10·3	− 8·8	
					δ Aquilæ.		
Sept. 19	M	½	F	+15·0	+10·0	+ 4·6	Spectrum very faint. Measures worthless.
	M	½	F	+15·0	−85·3	−76·2	
					β Cygni.		
Oct. 25	M	2	b_1	+12·2	− 7·5	− 3·7	Spectrum faint. Star-lines exceedingly so.
	M	2	b_1	+12·2	−39·5	−40·5	
	M	2	b_1	+12·2	+23·7	+30·3	
	M	2	b_1	+12·2	−14·9	−12·2	
					δ Cygni.		
Sept. 30	M	1	F	+ 6·3	− 0·7	+ 0·8	Spectrum faint, but steady. Star-line dark, but ill defined at edges.
	M	1	F	+ 6·3	+17·4	+10·4	
					α Aquilæ.		
Sept. 30	M	1	F	+14·8	−22·8	−21·9	Spectrum tremulous. Star line very ill defined.
	M	1	F	+14·8	−13·6	−14·8	
	M	1	F	+14·8	−37·9	−39·8	
					α Cygni.		
Sept. 14	M	2	F	+ 2·9	+28·2	+20·3	Definition poor, evening misty.
	M	1	F	+ 2·9	−36·5	−26·1	
Oct. 18	M	1	b_1	+ 7·3	−33·8	−36·7	Definition poor, passing cloud.
	M	1	b_1	+ 7·3	−69·3	−66·1	
					ζ Cygni.		
Oct. 25	M	3	b_1	+11·8	+22·5	+30·7	Spectrum faint, but star-line fairly well seen.
Nov. 28	M	½	b_1	+13·6	−61·9	−63·6	Spectrum and star-lines very faint. Definition very bad.
	M	½	b_1	+13·6	+24·6	+28·1	
	M	½	b_1	+13·6	−11·7	−13·6	
	M	½	b_1	+13·6	−40·5	−41·4	
					α Cephei.		
Sept. 7	M	1	F	− 2·8	−59·8	−47·3	Star-line faint, broad, and diffused.
	M	2	F	− 2·8	−24·7	−39·0	

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Date.	Obs.	Wt.	Line.	Earth's Motion in m. per sec.	Concluded Motion of Star. Meas.	Estimd.	Remarks.
					*ζ Pegasi.**		
1881. Sept. 19	M	1	F	+ 3·8	+ 6·7	+ 8·4	Star-line fairly sharp, but faint.
	M	1	F	+ 3·8	+28·6	+25·6	
	M	2	F	+ 3·8	−14·0	−16·0	
					η Pegasi.		
Nov. 22	M	½	b_1	+14·1	−65·9	−65·2	Star-lines very faint, and definition very bad.
	M	½	b_1	+14·1	− 0·5	− 3·9	
	M	½	b_1	+14·1	− 9·4	− 3·9	
	M	½	b_1	+14·1	−22·3	−24·3	
28	M	½	b_1	+14·8	+13·3	+13·0	Star-lines very faint. Definition very bad.
	M	½	b_1	+14·8	−14·8	−14·8	
					Fomalhaut.		
Sept. 19	M	½	F	+ 7·2	−57·2	−56·1	Very unsatisfactory.
					β Pegasi.		
Nov. 19	M	1	b_1	+14·0	− 0·8	− 4·3	Star-line faint and difficult to bisect.
	M	1	b_1	+14·0	− 8·2	− 4·3	
	M	1	b_1	+14·0	−13·2	−14·0	
22	M	½	b_1	+14·4	−69·4	−75·7	
	M	½	b_1	+14·4	− 3·5	+ 0·2	
	M	½	b_1	+14·4	+44·5	+36·7	
	M	½	b_4	+14·4	+12·1	+21·1	
	M	½	b_4	+14·4	+ 0·8	+12·2	
					α Pegasi.		
Sept. 30	M	3	F	+ 4·8	−30·1	−29·8	Spectrum steady, definition fair.
	M	3	F	+ 4·8	−44·0	−34·8	
Dec. 3	M	1	F	+17·6	−12·3	−13·1	Star-line dark but broad and diffused.
	M	3	F	+17·6	−21·3	−22·1	
7	M	4	F	+17·7	−45·8	−45·0	Star-line broad and ill defined at edges.
	M	4	F	+17·7	−37·4	−31·3	

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Date.	Observer.	No. of Obs.	Line.	Motion Measured.	Remarks.
			Moon.		
1881, March 14	M	7	F	−0·6	
April 6	W.C.	3	b_1	−3·5	
7	M	3	b_1	−0·5	Two prism-train.
9	M	2	F	−0·5	Two prism-train.
9	M	4	F	+0·2	
May 6	M	3	F	−2·4	
11	M	5	F	+0·8	
13	M	2	F	+0·3	
Nov. 28	M	5	b_1	−0·7	
Dec. 3	M	5	F	−2·5	
7	M	5	F	−1·2	
			Sky Spectrum.		
1881, Feb. 28	M	5	F	+11·2	
March 26	M	6	b_1	+ 0·3	
29	M	6	b_1	+ 0·3	
April 1	M	5	b_1	− 4·6	
17	M	5	F	− 1·6	
May 5	M	5	F	+ 0·4	
June 23	M	3	b_1	− 1·1	
23	M	3	b_1	− 1·4	Two prism-train.
Sept. 20	M	5	F	+ 1·7	
Oct. 1	M	5	F	− 0·9	
19	M	5	b_1	+ 1·8	
Nov. 21	M	5	b_1	− 0·4	
23	M	5	b_1	0·0	